

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions:

1. (Currently Amended) Sleeve for mounting on carrier cylinders of printing machines with two flange rings at the opposite ends of the sleeve, on which flange rings a cylindrical outer sleeve wall and an inner sleeve wall are supported at a distance from each other, with at least one support ring being arranged between the two flange rings for supporting the outer sleeve wall vis-à-vis the inner sleeve wall, wherein the outer sleeve wall (20) comprises is made of a fibre composite material with several at least one layers of a carbon fibres-nonwoven sheet, with the fibres of at least some of the several layers having the same fibre orientation relative to each other, (21), and wherein between the two flange rings (11, 12) at least one support ring (40, 40A) is arranged which supports the outer sleeve wall (20) vis-à-vis the inner sleeve wall (30) and with a winding of carbon fibres surrounding the layers of carbon fibres-nonwoven sheets.
2. (Currently Amended) Sleeve in accordance with claim 1, wherein said at least one support ring comprises several support rings (40, 40A) are arranged or formed located between the two flange rings (11, 12).
3. (Currently Amended) Sleeve in accordance with claim 1, wherein [[a]] the fibre orientation of carbon fibre of each of said several layers of the at least one layer of the carbon fibres-nonwoven sheet [[(21)]] is 90° relative to the a sleeve axis [[(A)]].
4. (Currently Amended) Sleeve in accordance with claim 1, wherein said at least one each of the several layers of said carbon fibres-nonwoven sheet of said outer sleeve wall are defined with a same unidirectional fibre orientation as compared to each other comprises several layers of unidirectional carbon fibres-nonwoven sheets (21), more particularly eight to fifteen layers of carbon fibre sheets.

5. (Currently Amended) Sleeve in accordance with claim 1, wherein [[a]] the fibre orientation of carbon fibres of the at least one several layers of carbon fibres-nonwoven sheet is 45° relative to the a sleeve axis.
6. (Currently Amended) Sleeve in accordance with claim 3 claim 1, wherein said outer sleeve wall comprises eight to fifteen of said several layers of said carbon fibres-nonwoven sheets have the same fibre orientation.
7. (Currently Amended) Sleeve in accordance with claim 1, wherein the carbon fibres-nonwoven sheet comprises a carrier fibre of the carbon fibres-nonwoven sheet has having low rigidity characteristics and/or consists of and comprising a textile material.
8. (Currently Amended) Sleeve in accordance with claim 1, wherein the carbon fibres-nonwoven sheet comprises a carrier fibre of the carbon fibres-nonwoven sheet has having high rigidity characteristics and/or consists of a and comprising glass fibre.
9. (Currently Amended) Sleeve in accordance with claim 1, wherein the carbon-fibres-nonwoven sheet comprises both carbon fibres and glass fibres such that said outer sleeve wall (20) comprises a carbon fibre – glass fibre hybrid and preferably comprises fibres-nonwoven sheets with carbon fibres and glass fibres.
10. (Currently Amended) Sleeve in accordance with claim 1, wherein the carbon fibres in the carbon fibre sheet [(21)] are arranged in bundles and the bundles [(22)] are arranged relative to each other by way of the a carrier fibre.
11. (Currently Amended) Sleeve in accordance with claim 1, wherein a winding with carbon fibres surrounding the carbon fibre sheet(s) the carbon fibre sheet is embedded in a matrix comprising an ester.

12. (Currently Amended) Sleeve in accordance with claim 1, wherein the matrix in which the carbon fibre sheet is embedded comprises an ester, preferably a vinyl ester further comprising a function surface coating that forms an outer surface of the sleeve.
13. (Currently Amended) Sleeve in accordance with claim 1 claim 12, further comprising a function surface (25), preferably designed as a coating, forming the outer surface of the sleeve, whereby wherein the function surface [(25)] is preferably electrically conductive and wherein said sleeve further comprises at least one discharge element [(60)] for discharging electrostatic charges [(is)] arranged in one of the flange rings, which when assembled electrically connects the function surface with the carrier cylinder.
14. (Currently Amended) Sleeve in accordance with claim 1, wherein the two flange rings (11, 12) have each include: (i) an external surface area on which the outer sleeve wall is supported; and, (ii) an end-side outer flange collar (17, 18) which annularly projects beyond [(an)] the external surface area (13', 14') of the flange ring (11, 12), on which the outer sleeve wall (20) is supported, and which delimits an end of the outer the external sleeve wall (20) at the end.
15. (Currently Amended) Sleeve in accordance with claim 1, wherein the two flange rings (11, 12) have each include: (i) an inner wall area on which the inner sleeve wall is supported; and, (ii) an end-side inner flange collar (17A, 18A), whereby each flange collar (17A, 18A) that annularly projects beyond [(an)] the inner wall area (13'', 14'') of the flange ring (11, 12) on which the inner sleeve wall (30) is supported and that delimits an end of the inner sleeve wall (30) at the end.
16. (Currently Amended) Sleeve in accordance with claim 1, wherein at least one of the flange rings (11, 12) is provided with comprises a boring system to act in conjunction with a compressed air system of the carrier cylinder [(1)], whereby preferably the boring system in the flange ring (12) has comprises at least one radial

boring [[(75)]] with an opening [[(76)]] on the sleeve outer wall ~~and/or and~~ the boring system has further comprises at least one axial boring [[(71)]] that is connected to a supply channel ~~, opening and that opens~~ into a radial boring (79), defined in said at least one support ring (40).

17. (Currently Amended) Sleeve in accordance with claim 16, wherein the axial boring [[(71)]] of the boring system in the flange ring (11) is connected with the a supply channel [[(81)]] in the at least one support ring (40) ~~via by~~ a pipeline (80) and/or the supply channels of different support rings are connected to each other by means of pipelines (80).
18. (Currently Amended) Sleeve in accordance with claim 17, wherein the boring system has includes a single feeder [[(72)]] to the inner sleeve wall (30) ~~whereby the latter and wherein the inner sleeve wall~~ is provided with a circumferential groove [[(31)]] on the an inner side, into which the single feeder [[(72)]] opens.
19. (Currently Amended) An adapter sleeve for mounting on a carrier cylinder of a printing machine, said adapter sleeve comprising:
 - first and second spaced-apart flange rings;
 - an inner sleeve wall connected to and extending between the first and second flange rings;
 - a cylindrical outer sleeve wall connected to and extending between the first and second flange rings and supported at a distance from the inner sleeve wall, wall;
 - said cylindrical outer sleeve wall comprising: (i) multiple layers of a fibre composite material, each of said layers defined by comprising at least one layer of a carbon fibres-nonwoven sheet including carbon fibers arranged in an orientation, wherein at least some of said sheet layers have the same fiber orientation as compared to each other; and (ii) a winding of carbon fibre wound around and surrounding the multiple sheet layers;
 - at least one support ring arranged between the inner and outer sleeve walls

to support the outer sleeve wall relative to the inner sleeve wall.

20. (New) Sleeve in accordance with claim 11, wherein said ester comprises vinyl ester.